GEORGETOWN CONSULTING GROUP, INC.
WAPA PETITION FOR ELECTRIC LEAC RATE
JANUARY 1, 2016 – JUNE 30, 2016

VIPSC DOCKET NO. 289

In this Report, Georgetown Consulting Group, Inc. ("GCG" or "Georgetown" or "Technical Consultant") presents:

- Analysis of the Water and Power Authority ("WAPA") October 2, 2015 filing for an amendment to the Electric and Water Levelized Energy Adjustment Clauses ("LEAC" and "WLEAC" rate);
- Discussion of the major issues and their impact on the electric and water LEAC rates requested in this filing;
- Recommendations of specific VI Public Services Commission ("PSC or Commission") policy actions and financial adjustments; and
- Proposed ordering provisions.

We have identified those LEAC rate components we suggest the PSC evaluate and consider to be transferred to WAPA's base rates after discussion and receiving and reviewing WAPA's input on the components. Finally, we present a proposed electric LEAC rate for the Jan – Jun 2016 period and a proposed water LEAC rate for calendar year 2016.

In a prior LEAC rate proceeding (for the LEAC rate beginning January 1, 2015), the Commission decided that for the immediate future the electric LEAC rate should be adjusted every 6-months and the water LEAC rate should be adjusted annually. Accordingly, the water LEAC rate is to be adjusted for the entire 2016 calendar year in this proceeding.

For presentation purposes we have summarized strategically the issues, analysis, findings, and potential Commission actions in summary tables presenting:

i. Critical issues potentially impacting LEAC rates that are only tangentially addressed in the WAPA filing,
ii. Economic consequences to consumers of the various issues,
iii. Findings concerning each issue, as applicable, and
iv. One or more regulatory actions available to the Commission.

Where applicable and for brevity, GCG has referenced discussions, analyses, and actions contained in prior LEAC reports and presentations.

To put the discussion below in some initial perspective we present our analysis of our proposed recommendations for the Electric and Water LEAC rates that are discussed in our report in Table 1 below:

Table 1

	Current LEAC Rate	WAPA Rate Proposal	GCG Rate Recommendation
Electric Department			
¢ per kWh	20.6101¢	23.3132¢	16.2790¢
Change from Current Rate		2.7031¢	(4.3311¢)
Water Department			
$ per KGal	$7.22	$6.51	$6.27
Change from Current Rate		($0.71)	($ 0.95)

The differences between the WAPA and GCG positions are detailed later in this report. On an operating level, the projected fuel costs are equal to or lower than the fuel costs in the current LEAC rate. This is the good news, keeping the LEAC rate at the lowest level it has been in a long time. However, this is dependent on world market energy prices and not on WAPA's performance. WAPA's plants do not have the efficiencies projected for this period as contained in the prior LEAC petition, depriving consumers of the benefits projected earlier. Completion of the heat recovery steam generator ("HRSG") retrofit project on St. Thomas was projected for the first quarter of 2016, but has now been deferred to the very end of 2016 or early 2017 with a nine month loss of capacity and a resulting additional cost to consumers of approximately $20 million. No adequate explanation has been offered by WAPA as to the failure to complete on time the demolition, construction, integration, testing and commissioning activities that are within their control, or the basis of petitioning for these additional costs to be passed on to consumers through the LEAC.

I. REGULATORY POLICY CONSIDERATIONS

While the PSC has being moving in a direction to coordinate its consideration of LEAC rate filings with actionable components from other major PSC proceedings and dockets, the WAPA filing does not demonstrate the importance of these related activities. WAPA presented its October 2, 2015 LEAC rate filing with little or no coordination or any sense of urgency from other proceedings or dockets. Notable examples include coordination or consideration of the management audit recommendations, the integrated resource plan ("IRP"), and more importantly, the implementation of large scale fuel conversion and energy efficiency projects designed to bring substantial fuel diversification and power plant efficiency benefits to consumers. The lack of coordination and demonstration of the affirmative action it is undertaking in implementing the IRP, the management audit recommendations, along with the project implementation missteps it has experienced in retrofitting the St Thomas HRSG (Unit 21) have not resulted in lower rates or significantly better levels of service, but instead have resulted in a request for rates that is not reasonable and prudent[1]. With respect to the matters of consideration and coordination with other PSC proceedings and dockets, we offer in Table 2 below a summary of:

[1] We acknowledge that Virgin Islands' consumers have received substantial benefits from the recent volatility in world energy prices being currently low. However, to date there has been little to no effect on rates from the fuel conversion and diversification project (LPG). The effect of the LPG conversion in the proposed six-month period is limited to St. Croix, and of limited effect as discussed below.

i. Critical issues in this LEAC and other PSC proceedings and dockets that impact current LEAC rates in this docket or future LEAC rates,
ii. Proposed findings associated for each issue,
iii. Potential economic impacts to consumers, and
iv. Summary of regulatory actions available to the Commission.

Each issue is then discussed below in an appropriate level of detail.[2]

TABLE 2

ISSUES AND AVAILABLE REGULATORY ACTIONS

Critical Issues	Findings	Impact to Consumers[3]	Regulatory Action
Management Audit Implementation	Rejection of critical recommendations and slow implementation response. Limited transparency and accountability.	Potentially $55 million/yr. for each year delay in optimal implementation schedule.[4]	Integration with LEAC determination. Independent report on implementation for each LEAC petition. Possible retention of management auditor by PSC. Greater monitoring.
Integrated Resource Planning	Extensive delays. Lack of meaningful and transparent interaction with stakeholders and PSC staff.	Potentially $45 million/yr. for each year delay in optimal implementation schedule.[5]	Independent report on implementation for each LEAC petition. Greater monitoring. Integration with LEAC determination.
Regulatory Efficiency / Reliability Benchmarks	Best practice does not exist	Large compared to any reasonable standard	Develop regulatory benchmarks for ratemaking
Bond covenant flow-of-funds compliance	Lack of transparency with compliance	Deferral of maintenance impacts on eff. / reliability	Require independent compliance statements
RFM Stipulation Violations	Unilateral non-compliance	Minimal benefits after an approximately $80 million program	Reconsider IAC implementation as stipulated or refund $4 million provided through the IAC for that purpose
STT – HRSG Retrofit Implementation	Implementation requirement of 5 years has no reasonable explanation	$26 million annual additional fuel cost for every year of unnecessary slippage in implementation	Adjustment – LEAC for costs found to be imprudent and not just and reasonable.
LPG Project Management / Implementation	Substandard Implementation Practices. Lack of transparency and accountability with PSC to set underlying rates	$63 million overrun with lack of transparency – delayed consumer savings.	Requires Independent Review of process and Board role. Approval of overrun deferral until adequate support

[2] Additional discussion of each issue can be found in a number of our previous LEA C reports including reports for: Jul-Sep 2014, Oct-Dec 2014, Jan-Jun 2015 and Jul-Dec 2015, and our report dated Sep 18, 2015 concerning the reconsideration of the Commission's 66/2015 Order.
[3] Values are not additive.
[4] Per February 2015 Management Audit
[5] Ibid.

Critical Issues	Findings	Impact to Consumers[6]	Regulatory Action
WAPA LEAC Rate Petitions	Imprudent Practice – No Board review and approval	Unknown	Require Future Board Resolution and evidence of checks and balances.
MFR Policies	Draft Policy focus on short term fuel costs. Unworkable.		Integrate management audit and IRP implementation requirements. Periodic operating evaluations on fuel efficiencies. Approve modified MFR's by Order

Based on our review and analysis of the October 2, 2015 LEAC rate petition, exhibits, supporting information and responses to discovery, within the context of WAPA's current regulatory environment we offer the following observations as they relate to the consideration of the LEAC rate filing with actionable components from other major PSC proceedings and dockets:

1. The **management audit** produced numerous recommendations directed at reducing fuel expense and operating costs. Annual savings of $40 million to $50 million were indicated as preliminary estimates of fuel savings assuming the low fuel prices that prevailed at the time of the audit. Disappointingly, WAPA's LEAC filing contains no mention of proposed actions to undertake the recommendations of the Management Auditor as they relate to reducing operating costs, improving efficiency and achieving fuel expense improvement.

   In addition, we believe that there are potential conflicts that WAPA needs to explain. Many of the Management Auditor's recommendations address efficiency improvements, personnel reductions, and related issues in the power generation department. It is our understanding that WAPA personnel, presumably the subject of many of the recommendations, have been charged by management to review and accept or reject the audit recommendations. As we understand, a number of recommendations offering significant savings have been rejected. The potential impact of these recommendations on the cost of fuel and power production efficiency and resultant LEAC rates are very significant. While the inherent conflict of this self-evaluation cannot be understated, it is important that the PSC make clear that a review and evaluation of the auditor's recommendations as they relate to generation are intrinsic to the determination of the reasonable cost of fuel to WAPA, and must be addressed in each LEAC rate proceeding and that the failure to do so has the potential to lead to future fuel cost recovery adjustments being required by the Commission in the determination of a reasonable fuel cost.

   To achieve the level of efficiency savings identified by the Management Auditor, the Commission should adopt power generation efficiency benchmarks for ratemaking purposes consistent with the findings of the management audit. This would allow the Commission an objective measure by which WAPA's implementation of the auditor's recommendations can be determined in a fully transparent manner. For the purpose of providing a measure of the impact of WAPA's failure to implement improvements in

[6] Values are not additive.

power production efficiency as an example, we have calculated the economic impacts (increased costs to consumers)[7] of just the long-delayed retrofit of the St. Thomas HRSG, which was the primary objective for the creation of the RFM funding mechanism and on which the PSC can choose to act on in this proceeding.[8]

Our specific recommendation is that the Commission require WAPA, in future electric LEAC rate filings, to include a calculation of the fuel cost that would be incurred with efficient operation as defined by the management audit, and the additional cost included in the electric LEAC rate as a result of failure to meet the efficient operation standard.

2. **The IRP** process is a long-delayed planning tool that will guide WAPA toward achieving an optimal long-term mix of traditional and renewable resources while meeting an acceptable level of reliability and reasonable fuel efficiency and diversification and portfolio standards of Act 7075. The IRP process has been identified by the Commission for over a decade as well as recently by the Management Auditor as a prerequisite to WAPA's resource planning decision-making process. Nonetheless, after years of awaiting the completion of the IRP, an optimal resource plan has yet to be identified by WAPA, nor have any meaningful interim results of the on-going IRP efforts been made available to the Commission or its staff, Virgin Island's stakeholders or consumers, although this has been requested several times.

   We also note that the timeframe for undertaking and completing the IRP analysis is taking longer than similar studies for other electric utilities. WAPA moved to delay the Avoided Cost docket in March 2014 pending completion of an IRP, which was then projected at 6-months. While WAPA indicates that many public stakeholder meetings have been undertaken (and GCG has attended a couple), nothing significant has yet to be gleaned from these meetings or provided to stakeholders for meaningful input. At this time, WAPA has exhibited a limited sense of urgency to identify a plan for future resource additions / retirements or implement these resources and the potential savings. Instead, WAPA indicates that it will await the results of the IRP and then decide how to move forward. Meanwhile, numerous actions, including Avoided Cost, Feed-In Tariff and implementation of Management Audit recommendations on new power generation technologies with significantly reduced projected fuel costs remain stalled.

   WAPA is currently invested in two large HRSG projects – the existing St. Thomas Unit 21 being retrofitted to allow for more efficient current power production and a second larger HRSG for St. Thomas that was purchased some time ago with gasoline tax revenues being stored in Minnesota. The Management Auditor has indicated that they believe the large scale HRSG in storage is not the right generation equipment for lower fuel costs and improved reliability. In addition, we understand that WAPA is considering the purchase

[7] The Unit 21 HRSG benefit has been very conservatively calculated at $4.5 million in January – June 2016, of which approximately one-half are included in WAPA's filing due to pre-outage operation of the unit. The $4.5 million is based on the unit operations being limited to 6 MW, consistent with WAPA's projection for the first six months of operation. The unit is projected to have a capacity of 20 MW with standard loading of 15 MW.

[8] Excluded from the impact calculation are the future benefits to be derived from new and more efficient generating technologies.

either of Unit 25 (the current leased emergency unit) or a similar unit. We do not know whether WAPA intends for the IRP results to guide its decision regarding Unit 25, but do understand that it intends to have the IRP guide its decision concerning the large HRSG being stored.

WAPA has come late to do the IRP process. It explains away the reason that it did not undertake an IRP earlier with the following response to discovery:

> *1-48* (c) *Why is the time that has lapsed since these recommendations not been a reasonable period of time for WAPA to accomplish this recommendation and to have installed replacement generation?*
>
> ***Response:*** *The 2005 Harris Group report states the following:*
>
> *"During the time frame of 2013-2015 St. Thomas will have reached the point of no longer being able to meet its spinning reserve requirements with one unit in an outage. Before this happens it is appropriate to add generation. The requirement to meet spinning reserve with a unit down at present requires that Unit 12 and Unit 14 be kept in serviceable condition for capacity requirements."*
>
> *During the timeframe made by the recommendation, the Authority began the IRP process that would guide the Authority in the type of generation needed.*

We do not believe that this response shows an understanding or appreciation of the purpose of an IRP. An IRP is a dynamic tool that is a Best Practice; some version should exist at all times in some form until it needs an update. It is not an ad-hoc exercise, but is a dynamic on-going process that is continually updated. The response by WAPA tries to explain away why a critical planning tool was not implemented until recently as a result of rate case negotiations, potentially resulting in an economic loss of significant proportions that have been passed on to consumers.

3. The October 2, 2015 LEAC filing does not enable the PSC, technical consultant or a consumer to evaluate what the **goals for fuel cost and reliability** are or where WAPA is in the process of developing such goals. As we have said before, the LEAC has turned into a filing that projects what WAPA will do in the next 6-months based on the standard that "this is what we can do with the resources available" rather than a filing that projects the operations that provide for the lowest cost and reliable service. However, there is no explanation as to how the new WAPA projection for the LEAC period January through June 2016 compares with what WAPA said would happen in the prior LEAC filing for the same period. There is no mention of what the fuel costs could be under efficient generation because WAPA is awaiting the results of the IRP that it insists in discovery can only be discussed informally.

   We believe that this process is ineffective and currently not very useful, and lacks any accountability. The result is a process through which WAPA gets what it wants to collect with no accountability to the Commission or consumers as to what it should produce and at what cost. This is the result of WAPA believing it has the right to pass through all costs that it incurs without consideration of whether such costs were prudently incurred or whether they will result in just and reasonable rates.

4. WAPA inadequately explains it compliance with **bond covenants**:

1-52 (c) Explain how WAPA actions comply with bond covenants that require in the covenanted flow of funds from the revenue fund to the O&M fund from which all expenses are to be paid prior to any other disbursement.

Response:

The Authority remains in compliance with bond covenants in regards to O&M funding based on its reprogramming of funds but also debt service payments which are paid by the trustee semiannually but funded monthly. Section 406, note 1, of the Authority's Bond Resolution (the governing legal document for the Authority's bonds) requires WAPA to pay debt service (1/6 interest and 1/12 principal) into a "Debt Service Fund" held by the trustee. This allows the Authority further budgetary control as it doesn't have to make large payments during the course of the year.

This response states that WAPA funds its debt service payments before it covers all necessary Operations and Maintenance funding, and cannot be reconciled with other responses in this proceeding where WAPA indicates that lack of revenues and payments from government customers do not allow normal maintenance and critical fuel invoice payments. The Bond Resolution requires all revenues to be deposited into the Revenue Fund and no deposit can be made into any other fund such as the Debt Service Fund until all operating expenses have been paid. WAPA should be required to make transparent the measures it takes regarding reprogramming funds resulting in variances from its originally established operating budgets in order to make required payments to the Debt Service Fund and indicate what the consequences are of such actions on efficiencies, reliability and fuel costs.

1-27 (d) *What is the impact on efficiency, fuel costs passed through the LEAC and reliability and service outages?*

Response:

The lack of timely receipt of the government (and other) receivables create a cash shortfall for the Authority. The Authority is forced to pay for fuel and other expenses with dollars that would have normally gone to maintenance and other activities that would increase our operating efficiency.

5. WAPA is aware that it has violated the **RFM Stipulation**; however it does not appear that WAPA sees its violations of the RFM Stipulation as anything of significance.

There are a number of major items in the RFM Stipulation that fall into this category. Principal in this regard is the commitment to bring on board an Independent Advisory Contractor ("IAC"). This was never undertaken and approximately $4 million in funds was provided through the RFM and then unilaterally reprogrammed by WAPA to other costs. The PSC should find that the reprogramming of IAC revenues provided by the RFM was imprudent and not "just and reasonable," as the funds were not used for the purpose provided and the purposes it was used for do not rise to the level of importance of an IAC. In addition WAPA stipulated that it would have the computerized maintenance management planning system, MAXIMO, installed and in operation by December 2012, and while major work has been undertaken and presented to the PSC at the last PSC Meeting in October 2015, MAXIMO is currently not completely installed and reporting is limited.[9] WAPA makes no mention of these significant missed stipulated to commitments.

6. One of the objectives of the RFM Stipulation in September 2011 was to install a temporary trailer-mounted emergency generator that could provide adequate generating capacity to meet consumer demand during the 18-month period. This was a bridging strategy necessary to enable WAPA to be able to undertake the **critical rehabilitation and deferred maintenance** proposed during the 18 month RFM period – with the retrofit of the St. Thomas HRSG being prioritized to result in WAPA being able to operate in combined cycle mode and produce significant ($26 million annually) savings. In prior LEAC proceedings, WAPA did provide completion GANTT charts indicating completion of the project no later than the close of 2015 and then later changed to the first quarter of 2016. It is now the final month in 2015 and WAPA indicates that the final contract for the demolition, erection, testing and commissioning of the retrofitted HRSG has not yet been finalized and is not expected to be finalized and put out for bid until late first quarter 2016, and that the completion date has moved to no earlier than December 2016. WAPA consistently refuses to acknowledge that consumers are losing energy cost savings due to these unexplainable delays. In discovery responses WAPA maintains that no savings expected to be realized by consumers has been lost over the last 4 years while the project was deferred and anticipated savings associated with the earlier in-service dates never materialized while the project was under WAPA's control. Meanwhile, WAPA has had to pay its fuel suppliers tens of millions in additional fuel costs during this period as a result of the unavailability of the HRSG and efficient combined-cycle operations, and has passed these costs onto consumers.

   The logic, as stated by WAPA is that savings will occur at some time in the future, when the HRSG is made operational. That logic fails completely; yes, savings will occur in the future, but the present savings are lost now and forever! Operation is now not scheduled till at least January 2017.

   The stark reality is that four years' worth of additional fuel costs were incurred by WAPA amounting to over $100 million that it then collected in its LEAC rate that otherwise would have been available to consumers for their discretionary spending uses. In responses to

[9] Installation and operation of MAXIMO is a matter of concern that dates back more than a decade now. In return for changing the LEAC process from semi-annual to quarterly, and then more frequent during the oil price run up of 2004-2009, WAPA agreed to complete the installation of MAXIMO in 2004; it remains incomplete.

discovery WAPA indicates, in part, that extensive negotiations over a $5 million contract extended the in-service date by years – an action that can only be deemed as not being prudent. Once again the root cause leading to this unfortunate consequence is the ability of WAPA to pass through additional costs (or lack of savings) through the LEAC.

1-2 (vi) WAPA's Jan – Jun 2016 RFM filing states that the consumer savings resulting from the HRSG retrofit will be $26,570,000 per year. Are we correct in assuming that any delay will result in additional consumer costs of approximately $2.2 million per month exclusive of accounting for the cost of funds?

Response: *Your assumption that the delay will cost consumers $2.2 million in savings is incorrect. Under your current assumption, the projected $26,570,000 savings after the HRSG conversion will reduce by $2.2 million for every month the project is delayed, which is incorrect.*

The projected yearly savings calculated for the HRSG project is based on the reduced fuel consumption from increased combined cycle operation over the course of one year following the completion date of the project. If the HRSG schedule is delayed, then the savings period for which the savings were scheduled to begin will also be delayed, but the projected savings would remain the same. If the current price of fuel remains steady, consumers will still realize a $26.5 million dollar savings in the first year following completion of the retrofit when compared to the prior year.

GCG recommends the Commission place WAPA on notice that with the January 2017 LEAC, the Commission's determination of LEAC rates will include the premise of energy produced using the Unit 21 HRSG on St. Thomas. The current LEAC recommendation does not include such an adjustment. Inclusion of a very modest level of "normal" HRSG operation in the six months ending June 2016 would lower the LEAC by $2.3 million, or 0.77 cents per kWh in the current LEAC recommendation.

7. WAPA has indicated there may be further modification and perhaps cost increases in the **VITOL LPG Contract.** Principally, as we understand changes in the term "Notice of Substantial Completion" are being contemplated through which the risk of further delay in initiating infrastructure and O&M payments would be shifted from VITOL to WAPA. No reason and justification have been presented for the change other than WAPA has indicated that it shortly will be burning LPG at its St. Croix facility and, without the contractual change, VITOL will not deliver the contractually-mandated LPG. WAPA has not cited any provision in the current contract that permits VITOL to refuse to deliver LPG to the completed portion of its project. No indication that such a change is required by the existing contract has been presented. When asked what the *quid pro quo* would be for WAPA to agree to remove this contractual risk from VITOL, none was identified other than an implication and assertion that without the change, LPG would not be made available for just the single island of St Croix. It is not clear why WAPA is giving away the benefits of a negotiated contract and why, for example, the ability to prepay for the contract is something that VITOL refused to permit – a

change that does not have any cost that has been presented to us. These actions should not be found to be just and reasonable.

1-7 (b) *Are any further change orders or contract amendments anticipated between the present time and commercial operations on St. Croix and St. Thomas? If so, provide a narrative explanation including the nature of the change and, if known, the expected cost and schedule impact. (Strikeouts below are WAPA changes in response from first response to the second)*

Response: *There may be a change order request caused by the delay in the project. Once the change order request has been received, it will be evaluated to determine which party is responsible for the associated costs as per the contract.*

7-2 (c) *If WAPA anticipates future contract amendments, please indicate the costs and benefits, to WAPA, of such amendments.*

Response: *WAPA is in the process of finalizing an amendment to the contract as it relates to substantial completion.*

8. It is entirely surprising that the WAPA Board is described in WAPA responses to discovery as not being involved in WAPA's **Applications to the Commission for LEAC rate and RFM surcharge changes**. The LEAC is the major source of WAPA revenue – 70% to 80% - depending on the price of fuel. For there not to be a check and balance is a major governance weakness and is not consistent with the reasonable control exercised by a policy setting board. Governing Boards in other Territories take an active policy role in the review and approval of what management can request before their regulatory bodies. This again adds to the lack of just and reasonable actions in the determination of the LEAC rate.

Set 1-1 *Please provide copies of all presentations and information provided by staff or others, meeting minutes, and transcripts of the WAPA Governing Board concerning its consideration of the Jan – Jun 2015 LEAC petition and the two RFM petitions filed by WAPA on Oct 2, 2015 including, but not limited to:*

c Proposed changes to LEAC rate.

Response: *The periodic changes to the LEAC rate are within managements control and does not go before the Board for each update. Consequently, there are no meetings minutes or transcripts from Governing Board meetings on the issue.*

d Proposed changes to those items included in the RFM surcharge component to base rates.

Response: *Attached is the Governing Board's approval to transfer the RFM* *surcharge to the base rates is attached. The increase in the RFM surcharge is within the Executive Director's control and is not required to go before the board for approval.*

9. The **MFR requirements** as currently recommended and temporarily implemented should be changed. In this and the prior LEAC proceedings, which were the second and third applications incorporating the use of the MFRs, we timely filed a required compliance reviews saying that the LEAC petitions as filed were not complete. WAPA management, through counsel, appealed to the Hearing Examiner both times. In the prior LEAC, there was a significant disruption of the schedule for over a month with WAPA taking no action. When required to provide discovery, it was provided in a matter of days indicating that during the delay period all the responses objected to could have been provided earlier than the Hearing Examiner resolution provided.

   A similar situation has occurred in this proceeding. A key requirement of the current MFRs is to provide for discovery only concerning the near-term cost of fuel – i.e. the cost of fuel during the LEAC period. As can be seen from our analysis above a review of what should happen in the next six month LEAC period is determining what is the best option of a number of undesirable high cost options. Significant concurrent options have been identified that, if implemented after appropriate vetting and in a timely manner, would have saved consumers hundreds of millions of dollars. They hold the promise to provide savings of a similar magnitude in the future. Each LEAC proceeding must analyze whether prudent actions are being taken by WAPA to move with all reasonable effort to implement savings that have been identified. At the current time this is not the case. As stated in the earlier sections, with the current state of operations of WAPA filing a LEAC without the benefit of integration of the issues raised by the management audit, the progress of the IRP implementation, delays in LPG implementation and delays in the HRSG, all of which hold the key to substantial cost reduction, the current LEAC analysis does not provide the appropriate incentive for determining the optimal cost and service levels for consumers. The MFR requirements should be modified. The current WAPA effort is not just and reasonable.

II. CURRENT LEAC RATE APPLICATION

After many years and LEAC periods where consumers stoically absorbed LEAC rates as high as 41.69 ¢/kWh (amongst, if not, the highest in the country) this is a proceeding that continues to bring significant rate relief to consumers. This is the result primarily of the world-wide collapse in energy prices and to a lesser extent, WAPA bringing LPG operations to St. Croix during the forthcoming LEAC period. WAPA's filing calls for a LEAC rate increase to 23.3132 ¢/kWh from the current rate of 20.6101 ¢/kWh (June to December 2015 LEAC); however, our analysis indicates that the LEAC Rate should decrease to between 15.5254 ¢/kWh and 16.2790 ¢/kWh.

Before we present our LEAC analysis, the Commission also requested that each component of the LEAC rate be reviewed to determine whether components currently in the LEAC Rate may more properly belong in WAPA's base rates. The Commission has expressed a preference that LEAC rate proceedings return to reflect changes to consumer bills only for the variable, energy-related costs of fuel or purchased power. However, the current process of inclusion of various items for recovery through the LEAC has evolved as a substitute in some cases for formal base rate cases. The PSC has expressed a desire that the LEAC rate should cover those variable fuel and purchased power costs that are outside of WAPA's control – mainly costs that are volatile due to world market prices of fuel – and no longer be a "catch-all" for recovering other costs.[10]

In conducting this review we have been guided by prior regulatory consideration of the issues and findings in other regulatory jurisdictions. The underlying regulatory principle for employing a short-term rate, such as the LEAC rate used by WAPA, is to adjust revenues to mirror changes in the highly volatile prices associated with the procurement of fuel that are not under WAPA's control. As a short-term rate, the LEAC is intentionally designed such that the under or over recovery of volatile fuel prices does not lead to adverse financial impacts to WAPA or excess costs being collected from consumers. While not universal, regulatory agencies generally support the recovery through a short-term adjustment clause of prudently incurred fuel-related expenses that are subject to volatile changes not under the utility's control – the objective the Commission has expressed its desire to pursue. These prudently incurred fuel-related charges eligible for short-term rate treatment are those that are incurred prior to the fuel being delivered to a utility's fuel storage facilities. This volatility of fuel-related charges may be due to a number of factors, but generally is related to factors such as fuel price, number of fuel deliveries, and distance.[11]

Taking these objectives into consideration, as well, as the principles in Attachment A, we offer the following observations about each of the LEAC rate components currently included in the pending LEAC rate filing. The existing LEAC rate components we propose for discussion purposes to remain in the LEAC rate include those components almost totally outside of WAPA control. These are subject to volatility in world fuel markets and comport to regulatory principles for variable fuel cost adjustments contained in Attachment A – most notably that the short-term adjustment rates only include the costs of fuel and the variable cost of purchased power. Each of the remaining components are within WAPA's control and, like the other components contained in WAPA's base rates, can be reasonably recovered based on the amount of energy sold to consumers. Table 3 provides the current cost components of the LEAC rate and presents for discussion purposes those we would propose be removed from the LEAC rate and instead placed into WAPA's base

[10] Profiles in Electricity Issues: Fuel Adjustment Clauses. ELCON, Number 17 April 1992.
[11] Florida Public Services Commission - Order No. 14546 Docket No. 850001-EI-B

rates and as well as those we believe should remain in the LEAC. The PSC should afford WAPA the opportunity to comment on this proposal no later than January 31, 2016. This should be reviewed by staff and a response provided no later than February 28, 2016. The issue should then be placed on a PSC Meeting agenda for review and decision after recommendations from WAPA and PSC Staff on how implementation should occur.

Table 3

LEAC Rate Component Assignment Recommendations

Current Components of Existing LEAC Rate	Recommended Regulatory Treatment	Base Rate Impact Cost / kWh
LPG-Fuel Cost	LEAC	$0.00000
LPG-Premium (Transportation, Insurance, Loss, Applicable Taxes, Handling, Profit)	LEAC	$0.00000
LPG Infrastructure Fee	Base Rate	
LPG O&M Fee	Base Rate	
Fuel Oil-Fuel Cost	LEAC	$0.00000
Fuel Oil- Premium (Transportation, Insurance, Loss, Applicable Taxes, Handling, Profit)	LEAC	$0.00000
Regulatory Costs	LEAC	
P&I on New 4-Yr GO Note	LEAC[12]	
Hedge Fund Program Costs	Base Rate	
Renewable Energy Cost	LEAC	$0.00000
Ultra-Pure Water Charge	Base Rate	
Plant Repair RO Contract	Base Rate	

[12] As required by PSC Order. The note is scheduled to be retired in August 2016 and will therefor only have an additional 2 months impact after this current LEAC.

III. ANALYSIS AND FINDINGS

GCG presents the following discussion of issues in the proceeding for consideration of the PSC. Many of these issues have been discussed in prior LEAC rate proceedings and will only be highlighted herein since they have been more fully presented in previous reports. The issues in this LEAC proceeding establish that WAPA has incurred and seeks to recover significant amounts that we find to have been imprudently incurred, and which should not be included in a "just and reasonable" rate finding for the LEAC rate. The discussion also establishes that these costs have been incurred in the past, and that WAPA's failure to act appropriately has cost the Virgin Islands residences and businesses over $100 million over the last four years, and holds the prospect of costing more than that over the next ten years. For example, the original $87 million VITOL contract would charge customers for infrastructure $148.8 million using the 5-yr schedule, $157.08 million using the original 7-yr schedule. The November 2014 amendment provides only for a 10-yr schedule that would cost $291 million. WAPA's LEAC rate filing in this proceeding seeks to begin recovery of the $291 million amount. This is but one of the areas in which WAPA's filing seeks to recover costs that are the result of imprudent actions.

RFM Funding **–** The Commission has previously taken action and removed the RFM component from the LEAC Rate and established the RFM as a base rate surcharge. This action was taken in Docket 289 Order 25/2015. In addition, the Commission has ruled to phase-out RFM funding with a targeted December 31, 2015 date as established in Docket 289 Order 25/2015. RFM revenues for calendar year 2015 were provided and intended to fully fund activities necessary to complete the critical redesign and retrofitting of the St. Thomas HRSG (including costs projected to be incurred in 2016) – one of the original and primary objectives of the RFM – and fully fund the emergency generating unit expenses through December 31, 2015. It has been acknowledged that any maintenance component contained in the RFM would become part of the generation O&M revenue requirement component of the base rate application. The only remaining regulatory evaluation will be with regard to the anticipated request for additional revenues related to the lease payments for the temporary emergency generator through November 2016.

Temporary Emergency Generating Unit - The current funding of the emergency generator has been phased-out of the RFM effective December 31, 2015. Any additional funding for the leased emergency generating unit will need to be petitioned for as a base rate component on an emergency basis. WAPA has requested in this proceeding that the PSC provide additional funding through the expiration of the lease in November 30, 2016 through the RFM. This form of rate regulation is unacceptable – WAPA committing to the purchases of goods or services for which it does not have adequate financial resources and then petitioning the Commission to provide rates after the fact. It is the Commission that is charged by the Legislature to set rates. This situation should not be allowed to repeat itself in the future or WAPA risks an adjustment. We do not recommend approval of recovery of these costs in the LEAC rate.

LPG Infrastructure and O&M Recovery Fees – GCG finds that the proposed Infrastructure and O&M Recovery Fees included by WAPA in its proposed LEAC rate filing for the period January – June 2016 for recovery in base or LEAC rates is not "used and useful" for regulatory purposes.[13]

[13] Costs incurred and investments made are used and useful if: (1) there is a direct and immediate benefit to consumers; traditionally, the investment is in a plant that is operational now or in a future test year or in the period

VITOL has not received from WAPA a "Notice of Substantial Completion"[14] as provided for in the July 25, 2013 VITOL contract, which is the basis of initiating the infrastructure fee and O&M monthly costs. Accordingly, there should be no charge to the public until such time that the LPG conversion project is compliant with regulatory principle and the contract. It is currently unknown when WAPA will provide VITOL a "Notice of Substantial Completion;" however, until this notice is issued in conformance with the terms of the existing VITOL contract we recommend no allowance for the inclusion in the Infrastructure and O&M Recovery Fee in the January 1, 2016 electric base or LEAC rates. Having said that, we recognize that for the period January 2016 through June 2016 there is projected to be some LPG fired generation on St Croix. None is currently projected for St Thomas prior to July 2016, as there have been no permits received from the Army Corps of Engineers ("ACOE"). In this regard, for the current LEAC, we have included an allowance for the St Croix of the Infrastructure charge based on the original $87 million infrastructure value. This will provide WAPA and VITOL the period through June 2016 to finalize the issues related to the entire infrastructure charges that the PSC should review and permit either through the LEAC or base rates as they determine on the basis of the costs being "just and reasonable".

To date the PSC has taken no final position or action on the LPG Infrastructure investment amount it deems prudent for recovery in rates – whether that amount be $87 million, $150 million or another amount. Order 25/2015 (paragraph 7) required that WAPA provide an analysis of the LPG infrastructure recovery cost – both the original $87 million estimate and the current $150 million estimate – with full supporting documentation. Although not timely, following our June 5, 2015 meeting with LPG project personnel, WAPA provided on June 11 substantial supporting documentation which is a positive step; however, this information is highly fragmented and has not been arranged in a sequential manner identifying each contract change order / amendment, but more importantly, the nature of the alternatives examined by WAPA, summary of the negotiations between WAPA and VITOL or the critical due diligence activities undertaken by WAPA to satisfy itself of the reasonableness of the VITOL change order / amendment, such as an independent review by a project / construction management firm specializing in such undertakings. The information provided does not indicate whether WAPA engaged a respected project and construction management consulting firm to review the cost changes prior to agreeing to a 72%, $63 million increase in cost. Nor is there a clear indication of the basis to which the cost changes were allowed under the original June 2013 contract, which appears to have imposed considerable performance risk on VITOL, but not WAPA. Without fully addressing at least these critical issues, costs incurred by WAPA pursuant to the amended contract cannot be found to be just and reasonable, or prudent.

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during which the rates may reasonably be expected to be in effect; (2) the investment or expense, even if not affording an immediate tangible benefit, meets certain secondary benefit criteria, such as reasonably foreseeable plant completion, a necessary cost of continuing business (including land acquisition to enhance gas reserves or other reasonable plans and commitments to dedicate property to public service), or assets held in reserve to ensure service reliability; or (3) the expenditure is necessitated by the projected immediate needs of the rate paying public.

[14] The following are the conditions precedent for the Constructed and Converted Facilities to achieve Substantial Completion under Section 7.04 of the VITOL Agreement: "… (b) Commissioning and Testing has been completed successfully as certified by duly authorized representatives of WAPA and Seller; … (e) all storage tanks in the Delivery Infrastructure have been loaded with the necessary quantity of LPG to enable Seller to comply with its obligations hereunder; (f) Seller is capable of commencing the continual delivery of WAPA's requirements of LPG to the Delivery Points and vaporized LPG to the headers of the turbines as set forth herein; …"

Much of this information was first requested by the Commission in 2014. Currently it is our position that the information requested to satisfy the PSC's concerns and make a decision about the prudent infrastructure that should be allowed for recovery has not been provided. In this proceeding, WAPA has attempted to impose on PSC staff the requirement to make sense of the fragmented information provided. We do not believe that WAPA has reasonably passed the threshold and burden of providing evidence necessary to have the $150 million of infrastructure investment be accepted for rate determination purposes.

Additionally, on a related issue, while WAPA has agreed to the massive increase on its part for the infrastructure investment, WAPA has presented to the Commission no explanation why prepayment by WAPA of this (increased) investment is not permitted under the contract other than VITOL would not agree. The logic is simple. WAPA's cost of money in the current low interest rate environment with long term bonds could be in the range of 5%, which is considerably below the apparent return on the outstanding investment embedded in the current contract with VITOL and WAPA which is stated to be approximately 8% after taxes. Under the current proposal, to cover VITOL's tax payments there is approximately $54 million of payments from WAPA. Prepaying the outstanding investment agreed to should have no harm to VITOL, but could provide enormous financial benefit to WAPA and its customers by displacing what is, in effect, a very expensive loan with a much more cost effective financing alternative. From a rate setting standpoint we recommend that the ultimate level of prudent investment in the infrastructure take into consideration both a reasonable prepayment clause and a reasonable underlying cost of money for the period that the loan is outstanding.

The PSC should also now understand that WAPA is willing to absorb an initial $63 million increase (from $87 million to $150 million) in the contract while VITOL is claimed to have absorbed $20 million of soft costs (i.e. some engineering work and a reduction in the rate of return on its capital invested) as part of the sharing of costs associated with the completion of LPG infrastructure activities. We have not been able to replicate the claimed $20 million *quid pro quo* resulting from the reduced rate of return by independent calculation and, although WAPA has requested that the PSC find these increased costs and allocations to be prudent and just and reasonable, the PSC should indicate that it finds this not just and reasonable. It should be a factor in the determination on the level of infrastructure costs to be included in rates and should be fully transparent.

WAPA also discloses through discovery it has received another request for a VITOL contract amendment. Of special importance is that WAPA has indicated that it is considering loosening the "Notice of Substantial Completion" definition to provide VITOL with earlier capital recovery of the infrastructure fee. It is unknown whether this is necessary for WAPA to receive propane deliveries on St Croix and if so, why and, if not, what *quid pro quo* WAPA would receive in return for consideration. As indicated, it is clear there would be an immediate and substantial benefit to VITOL; however, it is not clear what benefit consumers and WAPA would receive from removing the risk that VITOL knowingly accepted when it entered into the July 2013 agreement. This is an unbalanced situation and removing risk that VITOL willingly accepted and providing a new benefit to VITOL should not be considered prudent or "just and reasonable" unless a sufficient and demonstrably comparable benefit is conferred It should be a factor in the determination on the level of infrastructure costs to be included in rates.

It is further recommended, again, that WAPA file the analysis required by paragraph 7 of Order 25/2015 inclusive of identification of each reasonable alternative considered by WAPA, the nature of the due diligence review performed, identification of any independent project / construction manager used to review the cost changes and the nature of their review and the nature of the Board of Directors involvement prior to the approval of each major change order / amendment that has not yet been provided. Other than an unsupported WAPA assertion that it has provided the requested information, the information requested simply has not been provided and remains outstanding. With not providing this information, WAPA should understand that it risks the exclusion of a portion of Infrastructure Recovery increases from future base or LEAC rates.

Prudent Fuel Charges – The PSC sets WAPA fuel cost recovery through the LEAC rate mechanism to recover fuel costs based on prudent actions. GCG estimates, based on data provided by WAPA that it took up to three years to authorize (negotiate) a contract with Hamon-Deltak, the original equipment manufacturer, for the HRSG (Unit 21) retrofit project. While the retrofit contract had a total cost of approximately $5 million, the potential foregone savings to consumers from the greater efficiency of HRSG operation would have produced savings to consumers of approximately $26 million annually. After repeated opportunities, WAPA continues to fail to provide an adequate and plausible explanation of this extensive delay. While at this point the retrofit has been substantially funded by the RFM, WAPA has redirected that funding to other purposes and now seeks a new recovery of the cost of the retrofit. The PSC should impress on WAPA that projects that are originally estimated to be completed in 18-months cannot be automatically assumed to be delayed for 4-years and the additional costs incurred due to the unit not being in service and foregone savings from operations be automatically passed onto consumers. In a normal regulatory environment this situation would be subject to a prudence review and appropriate adjustments sought and applied. It is recommended that the Commission affirm its intent to conduct prudence reviews of any questionable imprudent actions impacting consumer rates. In this LEAC proceeding, the unit 21 has yet again been delayed from the prior LEAC filing projection for a period of approximately 9 months (from the first quarter of 2016 to January 2017) and a cost to consumers of approximately $20 million and not disclosed in any transparent manner in the filing or to the public. WAPA's filing shows that the bid documents for purportedly the final contract to complete the retrofit project and its associated demolition, erection, construction, completion and start-up activities required to put the unit into operation have not yet been completed or put out for bid which comes as a complete surprise. WAPA should be put on notice that unreasonable delays and their impact on cost will not be permitted, and appropriate adjustments will be applied to the charges included in the LEAC rate.

Independent Performance Contractor (IAC) – WAPA was required to retain an IAC pursuant to the RFM Stipulation as amended in early 2012. The role of the IAC, in part, was to provide specialized power generation maintenance and performance management services for the purpose of performing a comprehensive "gap" assessment based on determined availability and efficiency benchmarks; monitoring capital projects and maintenance activities; and identifying performance improvement projects, capital improvement projects, and/or routine preventative maintenance and unscheduled forced outage activities for the purposes of improving plant availability and efficiency.

While requesting and collecting $4 million for this item in RFM revenues and after four-years, WAPA has failed to retain the IAC. Meanwhile, WAPA's operations continue to be inefficient, unreliable, and operate at about the same level of inefficient performance as in the 2012 timeframe. In addition to not implementing the IAC, WAPA has also not indicated that it has aggressively implemented the recommendations of the management auditor related to generation and efficiency – especially those identified as having consumer savings on the order of $4.0 million per month.

As with other RFM funded projects, WAPA reprogrammed and redirected the funds for the IAC to other purposes without approval. While WAPA may have this authority with respect to funds its Board of Directors approves in its annual budget, it does not have the authority to reprogram the discretionary funding specifically approved (every three-months initially and then every six-months) and subject to PSC budgetary and expenditure control. This authority is specifically reserved to the PSC per the RFM Stipulation. Ironically, had WAPA retained the IAC as contractually required, it is almost certain that many, if not all, of the issues associated with the delay in the HRSG retrofit could have been avoided. The PSC should find that WAPA's action in not implementing the IAC as stipulated is imprudent and not just and reasonable. An adjustment in LEAC revenues equivalent to $4.0 million amortized over a 48-month period should be authorized by the PSC. Our current proposal for the LEAC in this proceeding does not include any amortization of this to customers and leaves this matter for the PSC consideration. If approved by the PSC, it can be amortized beginning in the subsequent LEAC on July 1, 2016.

Minimum Filing Requirements (MFR) for LEAC Rate filings – The MFRs were transmitted to the Commission by the Hearing Examiner for its March 26, 2015 meeting. The PSC has taken no action on the MFRs; however, the parties have been using the MFRs in each of the last three LEAC rate proceedings. We would request that the PSC approve the MFRs subject to amending the language in Section 3.4.2 of the MFR to read: *"The scope of discovery shall include questions seeking clarification of information contained in the Petition, the Cover Letter, the exhibits submitted in support of the Petition and any other information directly related to the cost of fuel or energy that is to be charged to customers through the LEAC currently or in the future. The status of recommendation of the management audit and the results of the IRP shall be provided in detail and be reviewed as part of the LEAC process in determining the appropriate LEAC rate."* Undertaking a LEAC analysis and LEAC rate determination in the current environment in the absence of determining whether WAPA is reasonably implementing recommendations of the management auditor that relate to the lower cost of fuel and to the generation expansion plan determined pursuant to the recommendations flowing from the IRP would be an exercise in futility.

Fuel Price Hedging Program – WAPA has instituted its fuel hedging program. Unlike the previous program, the new program includes a number of new hedging vehicles and strategies. WAPA has elected to institute its new program using a fixed swap strategy, which allows it to provide upside price certainty. While this strategy provides a level of insurance in a volatile market with upward pressure, it has just the opposite impact in a market with downward pricing pressure – the market situation we have today. As a result, the hedged fuel prices and volumes included in WAPA's filing to be included in rates result in a higher cost or penalty (insurance premium) to consumers of over $1.5 million over what fuel would have cost under the status quo purchasing procedures. We have accepted this penalty (insurance premium) for this filing. We do believe that

WAPA should file the decision-making criteria as well as the written recommendation from its Hedge Advisor that it uses to execute hedge contracts for LPG purchases. All filings should address not only the hedge / unhedged price differential at the time of decision-making, but also the volumes to be hedged. At the time the hedge was entered into, the hedge price was 15.5% more than the unhedged price projection. While it may be understandable and acceptable to hedge under those terms, there comes a point where the price differential is too great – in other words, that it is worth undertaking the gamble of actually having to pay more, because the projection at the time the hedge was being considered was that the hedge price differential was excessive.

Non-Payment by key Government Consumers - WAPA has indicated in this proceeding that the non-payment of government accounts receivable has increased yet again and reached an unsustainable level, thus keeping WAPA in a crisis. The various stakeholders can no longer avoid the issue of non-payment and/or late-payment by government customers. Clearly, the ongoing collection activities have not improved the government's performance in meeting its lawful obligation for the payment of its purchases of electric power and water. There is no evidence in the WAPA petition that continuing to pursue the same collection activities for another LEAC rate period will improve the situation. In fact, the evidence shows that the contrary has occurred.

There is also no dispute that WAPA is solely responsible for customer accounts management and collection of amounts billed consumers, and it has not adequately addressed the government accounts receivable issue. The result has been to significantly impact cash management as well as the financial integrity of its day-to-day operations. As of June 2015, WAPA's outstanding electric service receivables were $41 million – the majority of this amount was over 60 days in arrears. Not only must WAPA finance the cash deficiency this creates for its operations, but this amount also represents foregone internal capital WAPA could have used for undertaking maintenance, financing capital projects and implementing new high-efficiency power production.

PSC should further investigate whether contrary to VI statutes and bond covenants, WAPA has acted in a discriminatory manner by not treating all customers on the same basis with respect to enforcement of its lawful service rules and disconnection provisions for late or non-payment, its bond covenants, and VI statutes. WAPA should be required to certify to the Commission by January 15, 2016 that it is in compliance with its service policies and that it enforces its service rules in a reasonable, just and nondiscriminatory manner for all customers. WAPA should also provide by January 31, 2016 written statements from its financial auditor and bond counsel as to whether its current government collection practices adversely impact its financials and comply with the covenants of its bond indentures. Further PSC action should be based on the information received.

IV. ELECTRIC LEAC RATE CONSIDERATIONS

In this proceeding, WAPA has proposed a 2.70 ¢/kWh increase from the existing electric LEAC rate of 20.6101¢ to 23.3132 ¢/kWh. This is a 13.1% increase. GCG recommends a 16.6652 ¢/kWh LEAC rate, which is a 3.9449¢ reduction, or a reduction of 19.1% based upon a number of adjustments. Table 4 summarizes the difference between WAPA's electric LEAC rate proposal and GCG's adjustments:

Table 4
Electric LEAC Rate Adjustments

		Total Cost to Be Recovered ($000s)	¢ per kWh
1.	WAPA filing	$ 71,426	23.3132
2.	Update CME oil prices	(2,775)	(0.9057)
3.	CME LPG as unhedged LPG cost	(236)	(0.0771)
4.	Correct STX Unit 20 heat rate	(743)	(0.2426)
5.	Correct projected over-recovery	(8,761)	(2.8596)
6.	Correct oil inventory calculations	(4,700)	(1.5342)
7.	Eliminate STT LPG generation	3,767	1.2297
8.	Revise STT Dispatch for loss of LPG	(541)	(0.1767)
9.	LPG Infrastructure and O&M fees	(7,561)	(2.4680)
		-----------	----------
10.	Recommended LEAC	$ 49,875	16.2790
		======	======
11.	Current LEAC		20.6101
12.	GCG recommendation - reduction from current		4.3311
13.	% *reduction* from current		21.0%
			=====
14.	WAPA's proposed LEAC		23.3132
15.	WAPA proposal - increase from current		2.7031
16.	% *increase* from current		13.1%
			=====
	<u>SUPPLEMENTAL ADJUSTMENT</u> (Not included in above)		
17.	STT HRSG Adjustment Based on Jan-June 16	$ (2,309)	(0.7536)
		------------	----------
18.	LEAC with HRSG adjustment	$ 47,566	15.5254
		=======	======

GCG proposes a number of adjustments to WAPA's electric LEAC rate filing. The following discusses each of these adjustments.

Updated Fuel Price Adjustments **–** Pursuant to past practice, GCG has updated the fuel prices in Table 5 used to calculate fuel costs, using data from the Daily Bulletin published by the CME Group.[15]

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Table 5
Fuel Costs in LEAC Rates
Cost per BBL - including Pricing Premium[16]

	No. 2 Oil	**LPG**
Jan - Jun, 2015 LEAC Rate	$ 100.42	$ 39.87
Jul - Dec, 2015 LEAC Rate	96.64	34.55
WAPA filing, 10/2/15	80.81	
Hedged LPG price		36.31
Unhedged LPG price		33.29
GCG recommendation	73.09	
Hedged LPG price		36.31
Unhedged LPG price		31.98
Price reductions		
Jan-June to Jul-Dec	-3.8%	-13.3%
Jul-Dec to WAPA filing	-16.4%	
Hedged LPG		5.1%
Unhedged LPG		-3.6%
WAPA filing to Staff	-9.6%	
Unhedged LPG		-3.9%

Oil prices fell by 4% from the Jan-June LEAC rate to the July - Dec LEAC rate. By the time of WAPA's current LEAC filing, oil prices had declined by 16% from those embedded in the LEAC adopted June 30, 2015 for the period July - December 2015. Since that time, oil prices have continued to fall by an additional 10% to the recommended $73.09. These amounts include the $14.41 per barrel price premium.

As noted in Table 4, GCG proposes lowering the LEAC rate by $2,775,000 for the update to utilize CME fuel prices. GCG also proposes an additional $236,000 reduction relating to the price applied to unhedged LPG transactions. In its filing, WAPA, utilizing the services of its hedge consultant, Rˆ2 Energy Associates, provided two sets of LPG prices: (1) hedged prices and (2) non-hedged prices. The hedged prices are the prices pursuant to hedges that WAPA entered into on May 8 and

[15] http://www.cmegroup.com/market-data/daily-bulletin.html
[16] August 18, 2015 Glencore, LTD, pricing premium, page 21, and July 25, 2013 Vitol Virgin Islands Corp, pricing premium page 22.

May 26, 2015. The unhedged price is a "suggested LEAC curve" developed by Rˆ2 Energy Associates.

With respect to the hedged prices, as discussed earlier in this report, we make no adjustment. At the time the May 8 hedge was entered into, the hedge was within a fraction of the futures prices available to WAPA. When the May 26 hedge was entered into, the hedge price averaged about 8% more than the futures prices.

With respect to the unhedged LPG prices, we know of no reason why the Commission should depart from its previous practice of utilizing readily available futures prices from the CME Group as being the best current estimate of future LPG prices. Accordingly, we have utilized and propose that the Commission adopt the use of CME Group prices for the unhedged LPG purchases used in determining the electric LEAC rate.

Fuel Volume Adjustments **–** For LPG, WAPA's filing utilizes two prices: LPG hedged price of $36.31 per barrel, and unhedged price of $33.29 per barrel. With its forecast of LPG consumption in the Jan - June 2016 period, WAPA's filing applies the higher hedged price for 356,000 barrels of LPG, and the lower hedged price to 237,000 barrels. Table 6 compares positions regarding unit conversions and fuel consumption:

Table 6
Generating Unit LPG Conversions

	Available MW capacity	WAPA	GCG
Units converted to LPG			
St Thomas			
Unit 15	20	Mar-16	Post Jun-16
Unit 18	18	Apr-16	Post Jun-16
Unit 23	31	May-16	Post Jun-16
St Croix			
Unit 16	13	Nov-15	Nov-15
Unit 17	8.6	Feb-16	Feb-16
Unit 19	13.5	Feb-16	Feb-16
Unit 20	13.4	Nov-15	Nov-15
LPG barrels consumed			
Hedged		356,177	261,257
Unhedged		237,468	62,926
		----------	----------
Total LPG consumption		593,645	324,184
Oil consumption (barrels)			
STT Oil		320,655	476,535
STX Oil		75,709	74,944

LPG Volume Adjustment – GCG proposes that the electric LEAC rate be set on the basis of no LPG generation on St. Thomas in the first six months of 2016. In response to set 1-11, WAPA indicated that once the ACOE permit is secured, 4-8 weeks will be required for mobilization, followed by 100 days for work. Assuming 8 weeks for mobilization, the total elapsed time is 22 weeks, or 5-1/2 months.

In addition, given initial testing and other requirements, it does not appear that, even with an ACOE approval at this time, there would be significant LPG-fueled generation in the LEAC period. On St. Croix, where less post-approval work was required, the ACOE permit was issued May 8. The LPG storage tanks on St. Croix began to be filled on October 22, 2015. Testing was to have begun on November 27. Thus, on St. Croix, the time-elapse from ACOE approval to potential in-service was at least 6-1/2 months. No less should be assumed for St. Thomas.

As of this time, WAPA has provided no evidence of ACOE approval for St. Thomas use of LPG. We propose that the Commission not include LPG on St. Thomas in this LEAC.

Oil Volume Adjustment – With the elimination of LPG generation on St. Thomas, the LEAC calculation model automatically replaces the reduced use of LPG with increased use of oil. However, with its assumption of LPG on St. Thomas, WAPA's position assumes that Unit 25 would operate for only 449 hours in the months of May and June 2016, because of its assumption of the availability of lower cost LPG on WAPA's units. Since GCG's adjustments remove that lower cost LPG in those months, we have adjusted the dispatch to produce the same total MWh, while increasing operation of Unit 25 and decreasing operation of Units 15 and 18. Thus, the GCG adjustment includes increased oil consumption due to the loss of LPG, but that increase is reduced somewhat due to the re-dispatch to reflect greater operation of the more efficient Unit 25.

A second oil-related adjustment is that, in WAPA's filing, Unit 20 (St. Croix) normally has a heat rate of approximately 15,100 BTU/kWh. WAPA's model increases that to 18,200 BTU/kWh beginning in Feb-16. WAPA provided a response indicating that the heat rate increase was an error. Staff's position incorporates WAPA's heat rate correction, thereby utilizing less LPG and oil than was used in WAPA's filing.

Fuel Cost Over-Recovery Adjustment– Similar to its April 1 LEAC filing, in calculating the over-recovery to be included in the LEAC, WAPA's filing is based on a very simple calculation:

	WAPA	**GCG**
6/30/15 Actual deferred fuel balance (over-recovery)	$ (18,936,378)	
Deferred fuel recovery ordered in current LEAC	17,862,596	
Sales adjustment	(468)	

Over-recovery to be amortized Jan - June 2016	$ (1,074,249)	$ (9,835,656)

In the April 1 LEAC, GCG submitted and the Commission's LEAC rate reflects adjustments to the over-recovery calculation, based on the understanding that the deferred fuel recovery ordered in the Jan - June 2015 LEAC was only part of the story that will lead to the deferred fuel balance at the July 1, 2015 beginning of the new (current) LEAC. GCG's adjustments related to LPG infrastructure and O&M fees that had been allowed but not expended, and an under-recovery projected for the LEAC ending June 30, 2015.

In this proceeding, the above WAPA calculation does not take into account the following factors, all of which will affect the December 31, 2015 over-recovery:

i. As discussed earlier, fuel costs in July - Dec 2015 are lower than were forecast in developing the current LEAC. Accordingly, the current LEAC will over-recover actual costs. WAPA's position would not recognize that over-recovery until the LEAC to be authorized for July - December 2016, or a year after the over-recovery.
ii. On or about August 20 and September 22, WAPA received LEAC increases of 1.0105¢ and 0.4675¢ per kWh, respectively. These were largely, but not exclusively, for LPG infrastructure and O&M fees that WAPA has not incurred. Accordingly, these increase the LEAC over-recovery as of December 31, 2015, an over-recovery increase that WAPA's position does not recognize until July 1, 2016.
iii. The LEAC adopted June 30, 2015 assumes that LPG would begin to be used as a fuel-source on St. Croix in Sep-15. That has not occurred. Consequently, WAPA's position does not reflect this as a source of LEAC under-recovery until July 1, 2016.

In discovery, we requested that WAPA provide a monthly forecast, consistent with its LEAC filing, of the (over) under-recovery that will exist as of December 31, 2015. WAPA's response forecasts an (over) recovery of LEAC costs of $9,835,656. GCG proposes that the Commission adopt this as the best estimate of LEAC over-recovery at the initiation of the new LEAC, and that this amount be amortized to customers' benefit over 6-months. The amortization period is consistent with recent LEACs, in which the over-recovery is amortized over the duration of the proposed LEAC rate.

Oil Inventory Cost Calculation Adjustment - The fuel oil cost included in the LEAC consists of two elements: the current projected costs of oil purchases, based on information from the CME Group; and an oil inventory cost calculation that takes into account the running total of prior purchases and uses of fuel oil. Since fuel oil purchased in the past was more costly than current purchases, the LEAC calculation ultimately and appropriately charges customers for the inventory cost of fuel oil, which is more expensive than current purchase prices. However, as lower-cost purchases are made and the existing more expensive inventory is used up, the inventory cost model will produce lower charges for oil consumption in the future.

In its filing, WAPA's inventory cost of oil calculations include inventory balances, in terms of barrels of oil and cost, for three periods: (1) the historical six months ending June 2015; (2) the projected period ending December 2015, as included in the LEAC calculations adopted by the Commission to establish the current LEAC; (3) projected calculations, based on projected purchases, purchase costs and consumption, for the projected LEAC ending June 2016.

In WAPA's filing, the projected calculations correctly begin with the inventory balances (barrels and cost) at the end of the projected period ending December 2015 (as included in the LEAC calculations adopted by the Commission for the current LEAC). However, the beginning July 1, 2015 balances in WAPA's filing reflect the Commission's order, and do not reflect updates for the actual June 30, 2015 balances which were not available at the time of the Commission's order. Accordingly, the ending December 2015 inventory balances (barrels and cost) are unreasonable in that, while they of necessity incorporate assumed levels of purchases and costs, they do not incorporate the known starting point for inventory as of July 1, 2015.

In other words, while WAPA has connected two of the three periods shown in its inventory cost calculation, it has not tied those calculations to the bedrock of the known balances as of June 30, 2015. The following table identifies the specific differences that WAPA has not taken into account:

Table 7
Anomalies in WAPA's Oil Cost Calculation

	STT	STX
Barrels in inventory		
6/30/2015 actual ending	62,829	63,659
7/1/15 beginning	61,113	37,951
Value of oil inventory		
6/30/2015 actual ending	$5,428,573	$5,389,108
7/1/15 beginning	9,152,056	6,001,571
Inventory cost per BBL		
6/30/15 actual ending	$ 86.40	$ 84.66
7/1/15 beginning	149.76	158.14

As can be seen, WAPA's calculation assumes inventory costs as of July 1, 2015 that are much greater, both in total dollars and in $/barrel, than actual. By incorporating this higher starting point in its calculation, WAPA overstates the $/barrel inventory cost of oil consumed in the proposed LEAC. GCG submits that the logical disconnects in WAPA's filing used throughout the calculation of inventory cost must be corrected. GCG's position does so, with the results shown in Table 8:

Table 8
Corrected Inventory Values

	STT	STX
Barrels in inventory		
6/30/2015 ending	62,829	63,659
7/1/15 beginning	62,829	63,659
Value of oil inventory		
6/30/2015 ending	$ 5,428,573	$ 5,389,108
7/1/15 beginning	5,428,573	5,389,108
Inventory cost per BBL		
6/30/15 ending	$ 86.40	$ 84.66
7/1/15 beginning	86.40	84.66

The effect of correcting the inventory errors is significant. It lowers the electric LEAC by $4.70 million, or 1.5342 ¢ per kWh. WAPA's filing charges fuel oil at an average inventory price of $91.37 per barrel on St. Thomas, and $111.42 per barrel on St. Croix, both in a period of time in which the purchased cost of oil, including pricing premium, was projected in WAPA's filing to be $80.81 per barrel. GCG's proposed adjustments prices fuel oil at $74.73 and $79.57 on St. Thomas and St. Croix, respectively, with projected purchase cost of $73.09 per barrel. All of these values include the contractual $14.41 per barrel price premium.

The Commission should also direct WAPA to incorporate, in future LEAC filings, a monthly inventory cost calculation that spans the time expanse from the last known actual to the end of the current LEAC period, which would then form the starting point for the inventory cost calculations used in the projected LEAC period.

St. Thomas LPG Generation Adjustment – The earlier discussion of LPG volumes explains the underlying rationale behind the conclusion that the consumption of LPG on St. Thomas that was assumed by WAPA for Jan - June 2016 is not supported. In support of proposed adjustment, WAPA informed us during a telephone discovery conference that it had moved hedged volumes relating to St. Thomas out of the first half of 2016. WAPA maintained its position that LPG consumption would begin in June 2016, but it has taken action so as to avoid a hedge penalty in the first half of 2016. This is consistent with our position that little or no LPG generation will occur in that period on St. Thomas.

The effect of eliminating St. Thomas generation with LPG increases the LEAC by $3,767,000, or 1.2297 ¢ per kWh.

A related adjustment, also discussed earlier, is that, with the loss of LPG generation on St. Thomas, it is appropriate to revise the generation dispatch to make greater use of Unit 25 in May and June 2016. This adjustment lowers the LEAC by $541,000, or 0.1767 ¢ per kWh.

LPG Infrastructure and O&M Recovery Adjustment – As discussed, WAPA has indicated it is negotiating change(s) / amendment in the Vitol contract that would provide for earlier infrastructure recovery payments to Vitol, on the basis of issuing a "Notice of Substantial Completion" on an island-by-island basis, rather than on an the overall project basis as the Vitol contract now requires, and perhaps other changes not yet disclosed. Section 7.04 of the current contract provides for a single Notice of Substantial Completion. It does not appear that any of the requirements in the contract will be met until LPG service is available on both islands:

a. Constructed and Converted Facilities have achieved Mechanical Completion;
b. Commissioning and Testing has been completed successfully as certified by duly authorized representatives of WAPA and Seller;
c. Constructed and Converted Facilities have been constructed in accordance with Seller's Specifications, other than Punch list items;
d. Punch list shall be in final form or be deemed approved as provided for in Section 7.02 and only Non-Critical Deficiencies remain on the Punch list;
e. All storage tanks in the Delivery Infrastructure have been loaded with the necessary quantity of LPG to enable Seller to comply with its obligations hereunder;
f. Seller is capable of commencing the continual delivery of WAPA's requirements of LPG to the Delivery Points and vaporized LPG to the headers of the turbines as set forth herein;
g. Seller shall have delivered the Notice of Substantial Completion to WAPA.

Vitol and WAPA are prohibited from constructing required facilities on St. Thomas, absent ACOE approval. Accordingly, items a, b, c, and d cannot be met for both islands. Items e and f cannot be met, because of the lack of facilities and lack of ACOE approval. Finally, it would appear that Vitol cannot issue a Notice of Substantial Completion for the simple reason that the facilities required to provide LPG to St. Thomas have not been completed.

As we understand, the proposed contract revision, which has not been provided to the Commission, calls for WAPA to begin making payments to Vitol when Substantial Completion is achieved, on an island-by-island basis. With Substantial Completion on St. Croix, WAPA is to begin making payments equal to 40% of the contractual requirement. The remaining 60% would begin to be paid when Substantial Completion is achieved on St. Thomas.

In the telephonic discovery conference, Mr. Hodge indicated that the proposed contract revision is necessary because, without it, Vitol would refuse to make LPG deliveries to St. Croix. WAPA is proposing to amend the contract to ensure these deliveries, but has provided no specific written explanation of the requirement to amend the contract or the prohibition of receiving propane from VITOL absent the amendment.

WAPA's filing includes $10,185,000 and $1,750,000 of LPG infrastructure and O&M fees, respectively. These are based on the assumption that the infrastructure fee should be based on the $150 million amount for infrastructure in the amended contract of November 2014, and that the payments should reflect the 40% / 60% split of the as-yet not completed contract. Table 9 summarizes WAPA's proposal:

Table 9
WAPA Proposed Infrastructure and O&M Recovery Fees

	STX	STT	Total
Monthly infrastructure fee	$ 2,425,000	$ 2,425,000	
Percent by island	40%	60%	
Months of operation	6	3	
Infrastructure fee	$ 5,820,000	$ 4,365,000	$ 10,185,000
Monthly O&M fee	$ 416,667	$ 416,667	
Percent by island	40%	60%	
Months of operation	6	3	
O&M fee	$ 1,000,000	$ 750,000	$ 1,750,000
Total infrastructure and O&M fee			$ 11,935,000

While the Commission has made no final decision on the just and reasonableness of the amount of the Infrastructure investment that WAPA will be allowed to recover, GCG proposes out an over-abundance of caution that the Commission set the Jan – Jun 2016 electric LEAC rate to reflect some payment contribution toward the Vitol Infrastructure and O&M Recovery Fee based on an amount of $87 million. Our adjustment as shown in Table 10 incorporates the 40% / 60% split that WAPA is negotiating, albeit with no payment for St. Thomas consistent with the position that LPG operation will not begin on St. Thomas during the first six months of 2016.

Table 10
GCG Proposed Infrastructure and O&M Recovery Fee

	STX	STT	Total
Monthly infrastructure fee	$ 1,405,656	$ 1,405,656	
Percent by island	40%	60%	
Months of operation	6	0	
Infrastructure fee	$ 3,373,574	$ 0	$ 3,373,574
Monthly O&M fee	$ 416,667	$ 416,667	
Percent by island	40%	60%	
Months of operation	6	0	
O&M fee	$ 1,000,000	$ 0	$ 1,000,000
Total infrastructure and O&M fee			$ 4,373,574

This adjustment lowers the recoverable Infrastructure and O&M Recovery Fee, thereby adjusting the recovery in the electric LEAC for Jan – Jun 2016 by $7,561,000, or 2.4680¢ per kWh.

St. Thomas HRSG Adjustment **–** A discussed, WAPA has in repeated LEAC rate filings delayed implementation of the primary cost-saving objective of the RFM, which was the retrofit of the St. Thomas unit 21 HRSG. This LEAC rate filing now projects the HRSG to be providing retrofit benefits beginning January 2017.

WAPA's filing assumes that the HRSG will be available in the first half of 2016 to operate in a sub-optimal manner pending the initiation of the retrofit implementation phase as follows: 500 hours in each of the months Feb - April 2016, with an average loading of 6 MW (per operating hour) in February, and 10 MW in March and April. Thus, the LEAC includes some benefit from HRSG operation in the first half of 2016. We estimate those savings at $2.04 million. The HRSG operation that WAPA assumes for the first half of 2016 is the first HRSG operation since November 2014.

After April 2016, the HRSG is assumed to be out of service, for retrofit, until it returns to service in January 2017. If the HRSG does not operate as projected by WAPA in the first half of 2016, the Commission should consider ordering WAPA to include that level of operation, on a pro forma basis, in calculating its June 30, 2016 (over) under-recovery of LEAC costs. This would be a direct cost adjustment.

The retrofitted HRSG is projected to have a capacity of 20 MW. Nonetheless, WAPA's projection is that the average loading in the first half of 2016 would be only at a suboptimal 6 MW (per operating hour). In the first half of 2017, WAPA projects the HRSG to provide for generation of 25,891 MWh – essentially, 12.5% of all MWh generated on St. Thomas in those months. In comparison, the HRSG generation in the Jan - June 2016 LEAC is 12,997 MWh, or 6.2% of St. Thomas' MWh production. If the HRSG had been included in the projected LEAC at the 12.5% rate, the resultant savings in fuel cost would have been approximately $2.37 million *in addition to* the $2.04 million of savings included in WAPA's LEAC filing. Stated another way, at 6 MW generation, the St. Thomas HRSG is projected to save $4.41 million in a six-month period, of which WAPA has included $2.04 million in its filing.

Given the numerous and imprudent nature of the delays in the HRSG retrofit, and the resultant level of unreasonable fuel cost as a result of WAPA's failure to timely perform the HRSG retrofit, even though HRSG retrofit costs have been included in RFM rates, the Commission should consider including the additional $2.4 million of HRSG-related benefits in the current LEAC, as an adjustment based on a determination of the cost not being just and reasonable. **While this adjustment is not included** in our recommended electric LEAC rate of 16.4369¢ per kWh, this adjustment would lower the LEAC by 0.7522 ¢ to 15.6847 ¢ per kWh if considered and adopted by the PSC.

Additional Analysis **-** As stated elsewhere in this report, WAPA's LEAC filings are devoid of comparisons of the current period to claims that were made in the prior LEAC. As an example, the basis of the June 30, 2015 decision included a projection that the system heat rate for July-

December 2015 would be 13,907. The current LEAC filing projects the heat rate in that period at 14,391. WAPA's filing neither identifies those amounts, nor attempts to explain why the heat rate is now projected to be higher than was forecast. This is inconsistent with the MFR filing requirements.

Similarly, the June 30, 2015 decision included data that projects the system heat rate for Jan - June 2016 at 13,783. WAPA's filing projects the heat rate for that period at 13,389. Obviously, with recent performance showing a deteriorating heat rate, the improvement projected for Jan - June 2016, which we believe is largely related to the St. Thomas HRSG assumption, is suspect. Again, this is information that may be gleaned from WAPA's filing, but only with difficulty and considerable analysis since it is not presented or discussed in a transparent manner.

The Excel file (Attachment B) has been used to prepare the proposed GCG position, and has been provided to WAPA, includes an "Analys" tab. We recommend that the Commission require WAPA to implement similar analysis in future LEAC filings, thereby providing, to WAPA, Staff and the Commission, information that enables analysis of WAPA's LEAC filing in ways that are not available at the present time.

V. WATER LEAC RATE CONSIDERATIONS

Consistent with the Commission's prior order, which changed the Water Department's LEAC from a quarterly rate filing requirement to an annual requirement, WAPA has filed its 2016 *annual* Water LEAC Rate. WAPA's filing seeks a rate of $6.51 per thousand gallons (kGgal), or a 71 ¢/kGgal reduction from the current of $7.22 per kGgal rate. The WLEAC rate reduction contained in WAPA's filing is 9.8%. The effect on an average residential customer's monthly bill (at 2,400 gallon per month) is $1.70, or a 2.5% reduction in total bill.

GCG recommends that the Commission adopt a WLEAC rate of $6.27 per kGgal as shown in Table W-1. This recommended rate results from the mirroring of energy rate used in the WLEAC rate calculation to the Total Reserve Osmosis energy rate applicable based on the electric LEAC rate. Otherwise, the resultant WLEAC rate is consistent with the manner in which WAPA calculated its proposed WLEAC rate. This proposed change to the WLEAC rate lowers the WLEAC rate by 13.2% from the current WLEAC rate. The effect on an average residential customer's monthly bill is a $2.28 reduction, or a 3.4% reduction in total monthly bill.

As indicated, in calculating the WLEAC rate we have made only one adjustment to the WAPA position. It is as follows:

Table W-1
Adjustment to WAPA Filing

	($/kGgal)
WAPA's proposed WLEAC rate (12 months)	$ 6.51
Adjust electric rate charged to water	(0.24)

GCG Recommendation (12 months)	$ 6.27

Table W-2 provides the principal components of WAPA's proposed WLEAC rate calculation, GCG's proposed adjustment, and a comparison of the resultant rates and monthly charges:

Table W-2
WLEAC Rate Components

	WAPA ($000s)	Adjustment	GCG ($000s)
Regulatory Expense (Docket 289 Costs)	$ 19	$ 0	19
Water Production Charge/RO (Gross)	8,426	0	8,426
Less: Amt. billed Electric for Internal Plant Use	(1,308)	0	(1,308)
Less: Amt. billed Electric for STT Station #2	(249)	0	(249)
Electricity Charge for Purchased Water (Gross)	4,314	(321)	3,993
Less: Amt. billed Electric for Internal Plant Use	(518)	38	(480)
	---------	---------	---------
Total current cost	$ 10,685	$ (282)	$ 10,403
Less: Base Rate Recovery	(3,333)	0	(3,333)
Plus: Deferred Fuel Costs:	185	0	185
	---------	---------	---------
Total WLEAC Cost	$ 7,537	$ (282)	$ 7,255
Projected sales (000 kGgal)	1,157,296		1,157,296
Projected WLEAC Factor / kGgal	$ 6.51	$ (0.24)	$ 6.27
Current WLEAC Factor / kGgal	7.22		7.22
	-------		-------
Reduction in WLEAC Factor	$ 0.71	$ 0.24	$ 0.95
Average residential usage per month (kGgal)	2.400		2.400
	-------		-------
Reduction in average residential bill	$ 1.70	$ 0.59	$ 2.28
Current average residential bill	$ 67.06		$ 67.06
Percent decrease	2.5%		3.4%

If the Commission adopts the optional HRSG-related electric LEAC rate adjustment, the result will be a $6.16 WLEAC rate. This would reduce monthly residential customer bills by $2.54, or 3.8%.

RO Water Production Charge - WAPA's single largest cost in producing water is the charge incurred under its contract with Seven Seas. The gross cost of this charge is projected at $8,426,000 for calendar year 2016. In the current filing, WAPA's kGgal production assumptions are based on past data, as follows:

Projected Jan - June 2016 = Actual from Jan - June 2015
Projected Jul - Dec 2016 = Actual from Jan - June 2014

This simplifying assumption is a concern. Table W-3 shows that in 2014 production declined from the first to second half of the year. Meanwhile, using WAPA's simplifying assumption results in a filing that produces an increase in production from the first to second half of the year.

Table W-3
Water Production (kGgal) Forecast

	Actual Jan - June 2014	Actual Jul - Dec 2014	Actual Jan - June 2015	Projected Jul - Dec 2015	Projected Jan - June 2016	Projected Jul - Dec 2016
St. Thomas	63,181	69,358	66,293	63,181	66,293	63,181
St. Croix	87,431	76,886	78,011	87,431	78,011	87,431
	------------	------------	------------	------------	------------	------------
Total	150,612	146,243	144,304	150,612	144,304	150,612
	A	B	C	A	C	A

For its next WLEAC rate filing, WAPA should provide an analysis of consumption for several years, and use trend or other appropriate analysis to develop the consumption used in its future water production and consumption projections.

Electricity Charged for RO Water Production **–** The second major water-related expense is for electricity charges associated with RO water production. WAPA projects $4,314,000 of electricity charges based on its electric LEAC rate filing. Including the proposed GCG adjustments to the electric LEAC rate, the adjustment to the amount charged to water will be $321,000 less than the WAPA projection, or $3,993,000. However, as reflected in table W-2, a portion of the electric charges to the Water Department ultimately are billed back to the Electric Department for that utility's consumption of water.

Notwithstanding that the starting point for the electric charges reflects the same potential issue as discussed above concerning the kGgal production level for water production charge, the electric RO water production charge is not the same from half-year to half-year. That is because WAPA has reflected electric rates that vary from period to period in the calculation of electric charges incurred in the production of water.

The following table, from the electric LEAC rate filings, compares the electric rate charged to RO water production in the WAPA filing and GCG analysis:

Table W-4
RO Electricity Charge

	WAPA	GCG
Semi-annual projected fuel cost	$ 58,488,620	$ 51,930,169
	¢/kWh	¢/kWh
RO Energy Rate Fuel Cost Component	17.10	15.53

O&M Component	3.00	3.00
A&G Component	1.00	1.00
	------	------
Total RO Rate	21.10	19.53

The RO electricity rates reflect considerable reductions from the electric LEAC rates in prior periods, primarily as a result of the reduction in world market fuel prices resulting in a lower fuel expense for fuel consumed by WAPA in the production of electricity.

The O&M and A&G components in the above are consistent with the components stipulated by the Parties as part of the 2012 water base rate proceeding. It is anticipated that WAPA has included in its 2016 Electric Base Rate filing an electric rate for RO electricity sales.

Water Losses **–** WAPA's exclusive water system franchise comes with certain obligations and responsibilities including that it exercise prudent management and operational practices in the control of inefficiencies and their elimination from rates charged consumers. With full awareness of the need to avoid passing onto customers the cost of inefficiencies WAPA's past decisions to defer infrastructure expenditures unquestionably has resulted in increased costs to consumers.

WAPA is not currently meeting its obligations to exercise prudent management and control of its unaccounted for water levels. This WLEAC rate incorporates significant unaccounted for water. GCG has made no adjustment to the unaccounted for water assumptions used by WAPA; however, this level of unaccounted for water is not prudent nor "just and reasonable." On St. Thomas, WAPA projects unaccounted for water to be 5% of water produced and available for sale. This is an extremely efficient level for unaccounted for water and while WAPA has reported this level of unaccounted for water for an extended period of time, the level is difficult to understand (as being accurate) when viewed in context of the level of unaccounted for water found at the most efficient water utilities – it would make WAPA among the best in the US. In contrast, on St. Croix unaccounted for water is projected to be 41% of water produced and available for sale. When combined on a system basis, WAPA projects unaccounted for water at an average of 26% of water production for 2016. This means of the $8.4 million of RO water production and $3.9 million of RO electricity charges, $2.2 million and $1.0 million, respectively, is required to support this high level of unaccounted for water lost in WAPA's system.

Managing the level of unaccounted for water is perhaps the most effective strategy available to WAPA for it to assure consumers of the lowest possible WLEAC rate commensurate with the prudent operations. For this reason in 2004 the Commission established specific performance benchmarks for water system unaccounted for water levels in its November 24, 2004 Order No. 04/2005. The water system performance benchmark adopted by the Commission calls for water system unaccounted for water to be less than 14.1 percent of net production. We should note for the Commission that when the WAPA performance benchmarks were set the American Water Works Association (AWWA) recommended to its members a water loss and unaccounted for water level of 12 %. That recommendation has since been revised by AWWA to the 8 – 10 % level.

Unaccounted for water loss levels on St. Croix are simply unacceptable, not to mention the poor public opinion due to the colored water issue. WAPA's aging infrastructure contributes to high water losses due to more frequent breaks and leaks. All of the unaccounted for uses are not being paid for and have real-world costs in terms of RO production and electricity charges. These costs have financial and environmental implications for all Virgin Islands residents, businesses, and government consumers. Reducing WAPA's St. Croix water losses would have a very significant impact on WAPA's water rates. For instance if the St. Croix unaccounted for water level was reduced to the PSC's performance benchmark of 14.1% as set in 2004, the GCG recommended WLEAC rate of $6.27 per kGgal, could be reduced 25% and the average residential customer could see a $3.82 reduction in monthly bill, or 6%. This situation is an investment decision that must be proactively addressed by WAPA given the dollar impact on consumers. It will need to be addressed in the base rate proceeding since the capital requirements are beyond the capacity of the WLEAC to support.

WAPA is aware that controlling unaccounted for water of the magnitude found on St. Croix will require proactive leak management techniques that must include aggressive programs including leak detection activities to identify hidden leaks, managing the repair function to optimize, managing excessive water pressure and reservoir storage levels, and upgrading the existing delivery system (pipes) infrastructure. Technologies exist to allow leak noise correlators and loggers to pinpoint leaks, the use of flow and component analysis to quantify leakage amounts, and pressure management to systematically optimize pressure zones and reduce leakage. It has implemented these measures on St. Thomas and must focus attention to St. Croix.

Proactive and aggressive leak management programs will require substantial capital investment to correct what has been years of neglect. WAPA's ongoing move to Advanced Metering Infrastructure will allow its new meters more accurately to measure water usage and allow the review of connections to help identify unauthorized un-metered connections which should minimize apparent losses due to unauthorized consumption of water, meter under-registration, and data errors. GCG recommends that the PSC focus its attention to this matter in the water base rate proceeding since the necessary capital funding sources must be identified and the appropriate capital recovery provided for in base rates. There WAPA should present a comprehensive replacement program of its existing water mains (prioritized by breaks, age and water loss) complete with a long-term budget and proposed funding sources. In its future annual WLEAC files WAPA should also present a full narrative showing the implementation progress of its capital plans to reduce unaccounted for water and the milestones in achieving the plan.

VI. PROPOSED ORDERING PROVISIONS

GCG presents the following proposed ordering provisions for consideration of the PSC in approving a final order in this proceeding. The support for each of these ordering provisions was fully presented, appropriately developed, and supported in the body of this report and its attached appendices. GCG recommends approval and inclusion of the following ordering provisions.

1. Only fuel and purchased energy costs that are just and reasonable, and represent an efficient and financially prudent level for operations shall be included in LEAC rates effective January 1, 2016 and going forward. Any costs higher than the level of cost deemed prudent will not be allowed for LEAC rate recovery by the PSC.

2. The PSC shall not be bound to future rate increases caused by WAPA entering into agreements that require future Commission rate action without first seeking approval by and order of the Commission and the underlying agreements being just and reasonable. Any executed agreement having an impact on future consumer revenues to be collected and not receiving prior Commission approval shall not encumber the Commission's rate decision-making authority and the costs associated with such agreements will not be recoverable in base or LEAC rates.

3. The decision and action by WAPA to undertake the 24-month lease extension of the temporary emergency generator (Unit 25) without prior PSC approval of the rates (revenues) to support the lease was imprudent and is not just and reasonable.

4. The failure of WAPA to implement the IAC and to reprogram approved IAC funds for other purposes was imprudent and is not just and reasonable.

5. The latest delay to the commercial operation date of the Harley HRSG retrofit is imprudent and the Commission places WAPA on notice that with the January 2017 LEAC, the Commission's determination of LEAC rates will include the premise of energy produced using the retrofitted Unit 21 HRSG on St. Thomas.

6. The Commission finds WAPA has acted in a discriminatory manner by not treating all of its customers on the same basis with respect to enforcement of its service disconnection provisions for late or non-payment and the continuation of this practice is not just and reasonable. WAPA shall certify to the Commission by Jan 15, 2016 that it is in compliance with its service policies and that it enforces its service rules in a reasonable, just and nondiscriminatory manner for all customers. If WAPA is unable to make such certification it shall provide January 15, 2016 a plan that will bring it into compliance.

7. The language in Section 3.4.2 of the pending MFR is revised to read: *"The scope of discovery shall include questions seeking clarification of information contained in the Petition, the Cover Letter, the exhibits submitted in support of the Petition and any other information directly related to the cost of fuel or energy that is to be charged to customers through the LEAC currently or in the future. The status of recommendations of the*

management audit and the results of the IRP shall be provided in detail and be reviewed as part of the LEAC process in determining the appropriate LEAC rate."

8. Recommendations in the Management Audit relating to improvements in fuel costs and reliability of the WAPA system are found to be relevant for consideration in each LEAC proceeding in the determination of both current and long term costs. Until further order of the PSC implementation status reports from the Management Auditor shall be provided the PSC to accompany each semi-annual LEAC filing including a calculation of the fuel cost that would be incurred with efficient operation as defined by the Management Auditor, and the additional cost included in the electric LEAC rate as a result of failure to meet the efficient operation standard.

9. Recommendations and determinations in the IRP relating to improvements in fuel costs and reliability of the WAPA system are found to be relevant for consideration in each LEAC proceeding in the determination of both current and long term costs. Implementation status reports from the IRP consultant should be provided the PSC to accompany each semi-annual LEAC filing until further order of the PSC.

10. Initial findings and recommendations from the IRP consultant on the issues of the retrofit of the existing HRSG on St Thomas; the 6B HRSG in storage and its intended use on St Thomas; the current leased unit 25 on St Thomas; and the disposition of units 22, 12 and 14 on St Thomas should be provided to the PSC no later than January 31, 2016.

11. The IRP consultant shall provide its final Avoided Cost Study for WAPA no later than January 31, 2016.

12. Amendments to the LPG Infrastructure and O&M Recovery provisions of the Vitol Agreements from the initial $87 million basis to the $150 million basis shall not be considered "just and reasonable" by the Commission for inclusion in rates without WAPA providing a detailed analysis of alternatives examined in WAPA's decision to enter into each change order / contract amendment, copies of any independent assessments performed of each change order/ contract amendment, and an assessment of the *quid pro quo* of each party's position with regard to WAPA's prepayment ability, the cost of money implicit in the infrastructure fee, the details of the costs absorbed by VITOL when negotiating the contract amendment and the proposed amendment to the "substantial completion" clause.

13. The December 31, 2015 phase-out date established by this Commission for the RFM base rate surcharge in Docket 289 Order 25/2015 shall remain unchanged.

14. WAPA shall file its position as to the appropriate transfer of cost components from recovery in the LEAC rate to recovery in base rates, in response to the proposal made by PSC staff in this proceeding no later than January 31, 2016.

15. The Infrastructure and O&M Recovery Fee included in the LEAC for the period January – June 2016 shall be 1.4275 ¢/kWh based on allowing an infrastructure charge for the St Croix operations only and based on an infrastructure cost of $87 million. It is not reasonable at this time to conclude that the St Thomas LPG operation will receive a Notice of Substantial completion prior to July 1, 2016.

16. WAPA shall file the analysis previously required by paragraph 7 of Order 25/2015 no later than February 28, 2016. The lack of responses is delaying the Commission's review and consideration of the inclusion of any additional cost in the Infrastructure Recovery Fee above the original $87 million. WAPA should also file all supporting evidence as to why the cost of money embedded by VITOL in the infrastructure charge is reasonable and why VITOL's position of not amending the original contract as well as the contract amendment talks currently in progress for an appropriate prepayment clause is reasonable.

17. An infrastructure plan, annual capital budget and funding plan to bring St. Croix water losses to a 14 % level within a ten-year period shall be filed with the PSC no later than February 29, 2016.

18. The electric LEAC rate in this proceeding, effective January 1, 2016 is set at 16.2790 ¢/kWh until changed by the Commission. The recommended individual adjustments to the proposed LEAC rate filed by WAPA are:

Recommended Adjustments:	Total Cost ($000s)	¢ per kWh
LEAC Rate per WAPA filing	71,426	23.3132
CME fuel oil price update	(2,775)	(0.9057)
CME LPG (unhedged) price update	(236)	(0.0771)
STX Unit 20 heat rate	(743)	(0.2426)
Projected over-recovery	(8,761)	(2.8596)
Oil inventory calculation	(4,700)	(1.5342)
Eliminate St. Thomas LPG production	3,767	1.2297
Revise St. Thomas dispatch for LPG loss	(541)	(0.1767)
LPG Infrastructure and O&M Recovery fees	(7,561)	(2.4680)
Recommended LEAC Rate	49,875	16.2790
Optional Adjustment:		
St. Thomas HRSG	(2,309)	(0.7536)
LEAC Rate with HRSG adjustment	47,566	15.5254

19. The water LEAC rate in this proceeding, effective January 1, 2016 is set at $6.27 /kGals until changed by the Commission.

20. (Optional if adopted by the PSC): The Commission finds that the latest delay to the commercial operation date of the Harley HRSG retrofit is imprudent and authorizes an adjustment of $2.31 million to the LEAC rate recovery for the period Jan – Jun 2016

resulting in a (0.7536) ¢/kWh decrease to the recommended LEAC rate. The resulting electric LEAC rate in this proceeding, effective January 1, 2016 is set at 15.5254¢/kWh until changed by the Commission. The resulting water LEAC rate in this proceeding, effective January 1, 2016 is set at $6.16 /kGals until changed by the Commission.

This concludes our report.

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Attachment A
Proposed Summary of Adjustment Clause Principles

1. The use of a fuel adjustment clause to adjust rates is only appropriate when:
    a. The cost of fuel is a substantial proportion of the utility's overall revenue requirement;
    b. Fuel costs are expected to be volatile and the utility has little control over their magnitude; and
    c. The absence of a fuel clause could result in substantial financial instability to the utility and significant over (or under) charges to consumers.
2. A fuel adjustment clause is designed for a specific purpose, and should never be a substitute for or a means to avoid a formal rate case. A fuel adjustment clause should include only the costs of fuel and the variable cost of purchased power. It should not be used as a "catch-all" for recovering nonfuel costs, such as the costs associated with demand-side management (DSM) programs or pollution abatement costs, including the cost of SO2 emission allowances.
3. Fuel handling costs should not be included in any fuel adjustment, nor should fuel transportation costs if the utility has control over them.
4. A fuel adjustment clause should be applied to all rates that a utility offers, except where the rate already provides for explicit fuel cost recovery.
5. Fuel adjustment clauses should recognize the same cost-of-service distinctions that should be used in base rates. Only variable, energy-related costs should be allocated and recovered from customers on a kilowatt-hour (kWh) basis. Fixed, demand-related costs should be allocated and recovered from customers in a kilowatt (kW) demand charge, or, where rates do not include a separate demand charge, converted into a per kilowatt-hour value based on the customer or customer class' contribution to peak demand.
6. The fuel adjustment should vary by time-of-use if fuel costs vary appreciably by time-of-use.
7. If a fuel adjustment clause is used, all fuel costs should be included in the fuel adjustment and none should be included in base rates.
8. The level of the fuel adjustment should change as often as is required to provide timely and accurate recovery of fuel costs.
9. A fuel adjustment clause should be designed to minimize the disincentive for a utility to prudently manage its costs. A utility has a basic responsibility to:
    a. Prudently enter into and manage its fuel and purchase power contracts;
    b. Economically dispatch its generating units;
    c. Properly manage its interchange power arrangements;
    d. Ensure that the costs of fuels purchased from an affiliated supplier will be no greater than similar fuel costs from other suppliers; and
    e. Operate its generating units at high standards of performance so as to avoid the need for more expensive replacement power.
10. There should be nothing automatic about passing on fuel expenses, or any other expense, to utility ratepayers without adequate regulatory oversight. States that have fuel adjustment clauses should hold periodic hearings in order to review the reasonableness of procurement practices and power plant performance, and to reconcile collected revenues with actual costs.